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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/717,797

11/19/2003

Amir Abolfathi

AT-000218 US

8590

7590

07/27/2004

Bao Tran
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Santa Clara, CA 95050

EXAMINER

O CONNOR, CARY E

ART UNIT

PAPER NUMBER

3732

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/717,797	Applicant(s) ABOLFATHI ET AL	
	Examiner Cary E. O'Connor	Art Unit 3732	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5, 6, 8, 16 and 17 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is not clear how the openings and walls have variable lengths. There is no structure set forth in the specification that is capable of varying the length of the openings or walls.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 20 recites the limitation "the detector" in line 1 and "the digital model" in line 2. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Chartrand (2,426,388). Chartrand shows a dental tray 21 comprising a base having a plurality of prongs, the base having at least one opening 23 therethrough, a first wall extending from one side of the base, the first wall having at least one opening 23 therethrough, an at least one detachable portion 20 formed on one end of one prong, the detachable portion being removable to shorten the prong length. As to claims 2 and 3, note that the detachable portion and the first wall are curved to eliminate sharp edges and corners, as can be seen in Figure 6. As to claim 7, note that the tray includes a second wall which has openings therethrough. As to claim 9, note that the tray may be made of lead (column 3, last line), which is inherently radiopaque, as evidenced by Chandra (5,935,638) in column 3, lines 57-62. As to claims 10 and 11, the prongs are interconnected by an arcuate portion which includes a plurality of openings therethrough. As to claim 12, the tray is considered to be capable of being positioned in a radiographic scanner and it has been held that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chartrand (2,426,388) in view of Halverson et al (4,763,791). Chartrand appears to show only a lower tray. Halverson shows an impression kit having both upper and lower trays. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the tray of Chartrand in kit form comprising both upper and lower trays, in view of Halverson, because usually impressions are needed for both the upper and lower jaws. As to claim 18, Halverson also includes a container for holding the trays. It would have also been obvious to one of ordinary skill in the art to provide the system with a container so that all the components needed to take an impression are stored together and easily accessible. As to claims 19 and 20, the specific components of the scanner cannot be given patentable weight because the scanner is not positively claimed.

Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chartrand (2,426,388) in view of Halverson et al (4,763,791) as applied to claim 18 above, and further in view of Bublewitz et al (2002/0156186). Chartrand does not disclose the specific composition of the impression material. Bublewitz discloses an

impression material comprising a radiopaque material (paragraph 0112) and PVS (paragraph 0109). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an impression material containing a radiopaque material and PVS, as taught by Bublewitz, in the impression tray of Chartrand, so that the impression may be scanned to form a digital model of the mouth.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chartrand (2,426,388) in view of Halverson et al (4,763,791) and Bublewitz et al (2002/0156186) as applied to claim 21 above, and further in view of Jagmin (5,044,955). The radiopaque material of Bublewitz is mixed in the impression material, not coated on the surface. Jagmin teaches that a radiopaque material may be sprayed on a surface to make the surface more visible to X-ray (column 4, lines 11-25). It would have been obvious to spray a radiopaque layer on the impression formed by the impression tray of Chartrand, in view of Jagmin, so that a common impression material may be used and the impression can be made visible to a scanner if so desired.

Drawings

The drawings are objected to because photocopies of photographs are not permissible. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 803 (page 14, line 3), 804 (page 14, line 2) and 900 (page 14, line 17). A

proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 38, 42 (Fig. 1) and 142 (Fig. 5). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Information Disclosure Statement

The information disclosure statement filed November 19, 2003 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. Copies of the foreign patents have not been filed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cary E. O'Connor whose telephone number is 703-308-2701. The examiner can normally be reached on M-F 7:00am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin P. Shaver can be reached on 703-308-2582. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.


Cary E. O'Connor
Primary Examiner
Art Unit 3732

ceo
July 24, 2004